

CONFIGURABLE DIGITAL
LOUDNESS COMPENSATION SYSTEM AND METHOD

ABSTRACT OF THE DISCLOSURE

5 An audio loudness compensation system includes a level
sensor receiving an audio input signal and operable to
estimate a level of the audio input signal over a first
predetermined time period, and a level mapper receiving the
estimated level and operable to map the estimated level to
a raw audio gain in response to a slope setting and an
offset setting. The system further includes an attack and
decay filter receiving the raw audio gain and operable to
10 smooth out increasing and decreasing changes in the raw
audio gain in response to a second and, possibly a third
predetermined time period, and a compensation filter
receiving the smoothed raw audio gain and operable to
modify the audio input signal in response to the smoothed
15 raw audio gain, a center frequency setting and a bandwidth
setting, and generate a loudness compensated audio output
signal.

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